

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

To:
see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No. PCT/GB2004/001522	International filing date (day/month/year) 07.04.2004	Priority date (day/month/year) 09.04.2003
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International Patent Classification (IPC) or both national classification and IPC
G02B17/08, G02B27/28, H04B10/10

Applicant
UNIVERSITY OF WARWICK

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application



2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

<p>Name and mailing address of the ISA:</p>  <p>European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016</p>	<p>Authorized Officer</p> <p>Seibert, J</p> <p>Telephone No. +31 70 340-4712</p> 
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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/001522

Box No. II Priority

1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	7-12,28-30,33,35
	No: Claims	1-6,13-27,31,32,34,36-40
Inventive step (IS)	Yes: Claims	
	No: Claims	1-40
Industrial applicability (IA)	Yes: Claims	1-40
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 Reference is made to the following documents:
D1: EP-A-0 851 613 (TAIYO YUDEN KK) 1 July 1998 (1998-07-01)
D2: WO 02/21734 A (RAMIREZ INIGUEZ ROBERTO ; GREEN ROGER (GB); UNIV WARWICK (GB)) 14 March 2002 (2002-03-14)
D3: NING X ET AL: "DIELECTRIC TOTALLY INTERNALLY REFLECTING CONCENTRATORS" APPLIED OPTICS, OPTICAL SOCIETY OF AMERICA, WASHINGTON, US, vol. 26, no. 2, 15 January 1987 (1987-01-15), pages 300-305, XP002012726 ISSN: 0003-6935
- 2 Claim 5 of the present application does not comply with the provision of Article 6 PCT because it is redundant for the following reasons:
 - 2.1 The wording of claim 1 is identical to the wording of claim 5 up to the term "and preferably". This term renders the following features optional and thereby non-limiting. As a consequence claim 5 becomes redundant and inconcise.
- 3 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
 - 3.1 The document D1 (see Fig.27A) discloses (the references in parentheses applying to this document) a concentrator having all features of claim 1 of the present application:
A concentrator having a first surface (50a), a second surface (50b), and a concentrating surface (50c) disposed between the first and the second surface, the concentrating surface having a first profile which effects concentration of incident radiation at the first surface on to the second surface (column 26, lines 29-39).
Therefore the subject-matter of claim 1 is not new.
 - 3.2 Similar objections against the novelty of claim 1 can be raised on the basis of documents D2 (Fig.1) and D3 (Fig.1).
- 4 The present application does not meet the criteria of Article 33(1) PCT, because

the subject-matter of claim 38 is not new in the sense of Article 33(2) PCT.

- 4.1 The document D1 (see Fig.29 and Flg.34) discloses (the references in parentheses applying to this document) an optical transceiver having all features of claim 38 of the present application:

An optical transceiver (Fig.29) comprising an optically transmissive body (Fig.34) having a first (70a) and second (70b) end and a reflecting surface (70c) disposed between the first and the second end, which reflecting surface reflecting radiation passing through the body onto the first or second end wherein an optical polarising filter (18) is located between the first and the second end such that it polarises radiation that passes through the body.

Therefore the subject-matter of claim 38 is not new.

- 5 Dependent claims 2-37, 39 and 40 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step, see documents D1-D3 and the corresponding passages cited in the search report.